

Accredited



# Quantitative Methods (MEI) (Level 3 Certificate and AS Level)

**Highly practical new qualifications for  
gaining maths skills for university and  
employment**

Designed for post-16 students who have achieved grade C or better at GCSE Maths and don't want to take the subject at A Level but do use maths in other subjects such as Biology, Business Studies, Chemistry, Computer Science, Economics, Geography, IT or Psychology.



## An exciting new choice

Engaging and inspiring, Quantitative Methods supports post-16 learners with their mathematical needs in other subjects, as well as for employment and everyday life.

## Who was involved in developing the course?

Quantitative Methods has been developed jointly by MEI and OCR. We have consulted widely with teachers and higher education lecturers in a range of subjects including Biology, Business Studies, Chemistry, Computer Science, Economics, Geography, IT, Mathematics, Medicine and Psychology.

## Two practical choices

Students can follow a 60-guided learning hour unit, Introduction to Quantitative Methods (IQM), and obtain a Level 3 Certificate. If they wish, they can continue by taking Decision 1 and Statistics 1 from the GCE Maths (MEI) suite and obtain an AS Level in Quantitative Methods. ('Mathematics' doesn't appear in these titles because this course shouldn't be seen as a suitable preparation for Maths, Engineering or Physical Sciences at university.) The AS in Quantitative Methods requires 180 guided learning hours in total.



**= Level 3 Certificate in Quantitative Methods (MEI)**

**IQM + Decision 1 + Statistics 1 = AS in Quantitative Methods (MEI)**

## Level 3 Certificate in Quantitative Methods (MEI) – an overview

This motivating unit encourages students to tackle problems in real or realistic contexts, using tools such as a spreadsheet where appropriate. They'll also see how maths is relevant to their other subjects.

In taking this unit, students can develop their ability to:

- Consolidate and extend the mathematics they've learnt at GCSE
- Develop transferable skills in maths
- Work fluently in a variety of contexts
- Use problem-solving cycles in modelling, statistics and financial mathematics
- Apply common sense to check the outcomes of calculations
- Use appropriate technology in their work.

The content covers:

- Use of ICT
- Modelling
- Statistics
- Finance
- Working with exponentials
- Working with graphs and gradients
- Risk.

## Assessment

<b>Examination</b>	72 marks 80% of the total marks for this unit 1 hour 30 minutes All questions are compulsory One paper with six to nine questions
<b>Coursework</b>	18 marks 20% of the total marks for this unit Candidates are required to undertake a piece of coursework, solving a statistical problem with the assistance of a spreadsheet

To download the specification and find out more about the Level 3 Certificate in Quantitative Methods, visit [ocr.org.uk/iqm](http://ocr.org.uk/iqm)

## AS Level in Quantitative Methods (MEI) – an overview

This highly relevant specification gives students the mathematical skills to tackle problems in a variety of different real and realistic contexts. They're taught to use a modelling cycle, a statistical problem-solving cycle and a financial problem-solving cycle. The use of technology – in particular, spreadsheets – is an integral part of the course.

### Statistics 1 (S1)

In taking this unit, students can:

- Build on and extend the data handling and sampling techniques they've learnt at GCSE
- Apply theoretical knowledge to practical situations using simple probability models
- Gain insight into the ideas and techniques underlying hypothesis testing.

<b>Examination</b>	72 marks 100% of the total marks for this unit 1 hour 30 minutes The examination paper has two sections: Section A: 5 – 7 questions, each worth at most 8 marks Section total: 36 marks Section B: two questions, each worth about 18 marks Section total: 36 marks
--------------------	--

### Decision Mathematics 1 (D1)

In taking this unit, students can:

- Gain experience of modelling and the use of algorithms in a variety of situations
- Develop modelling skills.

The problems presented are diverse and require flexibility of approach. Students are expected to consider the success of their modelling, and to appreciate the limitations of their solutions.

<b>Examination</b>	72 marks 100% of the total marks for this unit 1 hour 30 minutes The examination paper has two sections: Section A: three questions, each worth about 8 marks Section total: 24 marks Section B: three questions, each worth about 16 marks Section total: 48 marks
--------------------	--

To download the specification and find out more about the AS Level in Quantitative Methods, visit [ocr.org.uk/asqm](https://ocr.org.uk/asqm)

## Just some of the reasons to offer Quantitative Methods:

- It's fully resourced and supported by MEI.
- It develops understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment.
- Your students are encouraged to tackle problems in real or realistic contexts that are relevant to their other subjects.
- It develops students' abilities to reason logically, to recognise incorrect reasoning and to generalise.
- Your students can acquire the skills to use technology such as calculators and computers effectively, recognise when such use may be inappropriate and be aware of limitations.
- It's practical to teach, has specifications with a clear and easy-to-understand format, and we offer carefully planned support.

*"I want to insist that everyone doing Chemistry at my college does this course. It will definitely improve their Chemistry results."*

Head of Chemistry at a sixth form college

## Practical support for you

Dedicated support materials will be available from MEI ([www.mei.org.uk](http://www.mei.org.uk)) who have a track record of providing excellent resources and support for teachers and students. These will include case studies related to different subjects as well as support with problem solving and use of ICT.

## Want to know more?

To receive the latest updates on Quantitative Methods, register at [ocr.org.uk/updates](http://ocr.org.uk/updates)

Why not join our social network community for teachers at [social.ocr.org.uk](http://social.ocr.org.uk)

**www.ocr.org.uk**  
OCR Customer Contact Centre



**Vocational qualifications**

Telephone 024 76 851509

Facsimile 024 76 851633

Email [vocational.qualifications@ocr.org.uk](mailto:vocational.qualifications@ocr.org.uk)

**General qualifications**

Telephone 01223 553998

Facsimile 01223 552627

Email [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

*For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored.*

© **OCR 2013** Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee. Registered in England.  
Registered office 1 Hills Road, Cambridge CB1 2EU. Registered company number 3484466. OCR is an exempt charity.

MC414b  
1739617539